REMARKS

Claims 6 and 39 to 61 remain in the case.

Reconsideration of this Application and entry of the foregoing amendments are requested. Claims 6 and 40 have been amended in view of the Office Action and to better define what the Applicants consider their invention, as fully supported by an enabling disclosure. Additional support for the amendments to claims 6 (e), (f), (g) can be found, for example, at page 10, lines 12-13 of the specification. Additional support for new claims 41 to 61 can be found in claims 6, 39 and 40.

The Examiner first notes that the drawings should be identified by SEQ ID numbers in compliance with sequence rules. The legend of Figures 1 to 6 at page 3 of the specification was amended accordingly.

CLAIMS REJECTIONS PURSUANT TO 35 USC & 112, FIRST PARAGRAPH

Claims 14 and 29 are rejected as containing subject matter that was not enabling at the time the application was filed.

Claim 14 is rejected as having no limitations to the function of the encoded polypeptide. Claim 14 now recites the function of the encoded polypeptide as it is now drawn to a metallopeptidase. Claim 14 is now cancelled. New claims are now directed to vectors comprising nucleic acid of the present invention as defined in other claims of the present invention which recite the function of the encoded polypeptide.

Claim 29 is rejected as being to broad. Claim 29 is now cancelled. New claims are now directed to host cells comprising nucleic acid as defined in other claims of the present invention which recite the function of the encoded polypeptide.

CLAIMS REJECTIONS PURSUANT TO 35 USC & 112, SECOND PARAGRAPH

Claims 6, 39 and 40 are rejected as being indefinite for failing to particularly point out and distinctly claim the invention.

In particular, claim 6 is rejected as being confusing. Claim 6 was reformulated so that it recites polynucleotide sequences that are complementary to polynucleotide sequences encoding metallopeptidase or fragment thereof.

Claims 6, 39 and 40 are also rejected because the exact hybridization conditions are not provided. The examiner indicates that these claims are unclear because different nucleic acid hybridize under different conditions. It is respectfully submitted that although it is true that hybridization conditions used may vary depending on the nucleic acid used and on the homology of the target nucleic acid that the experimenter wishes to capture with the conditions that it devises. It is respectfully submitted however that a person of ordinary skill in the art knows, and knew at the time of the application, whether particular conditions qualified as "high stringency conditions" for a specific nucleic acid. Hence, in the well known handbook "*Molecular cloning, a laboratory manual*, second edition of 1989 from Sambrook *et al.* [hereinafter "Sambrook"], examples of such conditions are listed: 6XSSC or 6XSSPE, Denhardt's reagent or not, 0.5% SDS and the temperature used for obtaining high stringency conditions is most often in around 68°C (see pages 9.47 to 9.55 of Sambrook) for nucleic acid of 300 to 1500 nucleotides. Although the optimal temperature to be used for a specific nucleic acid probe may be empirically calculated, and although there is room for alternatives in the buffer conditions selected, it is submitted that within these very well known condition ranges, the nucleic acid captured will not vary significantly. Indeed, Sambrook clearly indicates that the "choice depends to a large extent on personal preference" (see page 9.47). It is therefore submitted that the claim as originally formulated was meant to embrace any of the known alternatives for obtaining high stringency conditions. Furthermore, as indicated earlier, there are known means for calculating the optimal temperature and for selecting the optimal buffer conditions, and the person of ordinary skill in the art knew them at the time of filing of the application. Sambrook specifies that the formula to calculate the optimal temperature which varies according to the fraction of guanine and cytosine in the nucleic acid probe and the length of the probe (10 to 20°C lower than T_m wherein $T_m = 81.5°C + 16.6(\log_{10}[Na^+]) + 0.41(\text{fraction G+C})-0.63$ (% formamide -(600/l)) (see pages 9.50 and 9.51 of

Sambrook). Nevertheless, in order to accelerate prosecution, the applicants have recited specific high stringency conditions in claim 6 (i) which they believe to be standard high stringency conditions.

Claims 6, 39 and 40 are also rejected because of the use of the wording « NEP-like » which the Examiner finds unclear. The claims now recite a metalloprotease.

CLAIMS REJECTIONS PURSUANT TO 35 USC & 102(B)

Claims 6 and 39 are rejected as being anticipated by Marra et al. which teaches a polynucleotide that hybridizes a SEQ ID NO : 12 under high stringency. It is respectfully submitted that Marra discloses an EST. Marra does not disclose the function of the protein encoded by this nucleic acid. It is respectfully submitted that Example 9 at pages 50-53 of the Revised Interim Utility Guidelines Training Materials published by the USPTO ["USPTO Guidelines"] is directed to a disclosure of a nucleic acid sequence of which function is not known. At page 53, the Guidelines indicate that such nucleic acid does not satisfy the utility requirement nor the written description requirement because it does not disclose or suggest any property or activity for it. It is respectfully submitted that a nucleic acid like an EST which does not satisfy the utility and written description requirements cannot anticipate or suggest the subject matter of claims 6 and 39 drawn to nucleic acids encoding metallopeptidases. To say otherwise would be analogous to concluding that published genomes anticipate or render obvious sequences for any newly discovered function/genes in this genome.

Claim 29 was also rejected on the basis of US 5,817,482 (Bandman). Claim 29 is now cancelled and all new claims directed to vectors recite sequence limitations that distinguish them from Bandman.

The rejections of the original claims are believed to have been overcome by the present remarks and the introduction of new claims. From the

foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order, and such an action is earnestly solicited.

Respectfully submitted,

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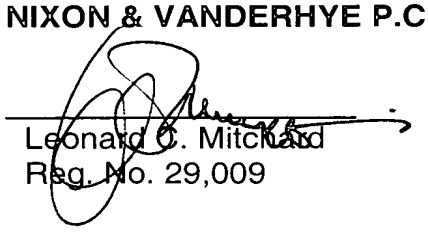

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